What is claimed is:

1. A method comprising:

    receiving successive frames carrying data in timeslots,
the timeslots being assigned to channels so that data for the
channels comprises interleaved data;

    aggregating the data from successive frames for each of a
predetermined number of the timeslots;

    mapping the aggregated data, by timeslot, to produce a
timeslot-based map; and

    remapping the aggregated data in the timeslot-based map
to produce a channel-based map.

2. The method of claim 1 wherein, in the channel-based map,
the data for the channels are grouped together, by channel, in
the order in which the data were received.

3. The method of claim 1 wherein remapping comprises:

    using timeslot-remap information to re-order the
aggregated data stored in the timeslot-based map.

4. The method of claim 3 wherein mapping comprises storing
the aggregated data in a first buffer and wherein remapping
comprises storing the aggregrated data stored in the first

buffer in a second buffer according to the timeslot-remap information.

5.   The method of claim 4 wherein the timeslot-remap information comprises a table, and the table includes an address and an increment value associated with each of the timeslots in a frame.

6.   The method of claim 5 wherein remapping comprises remapping the aggregated data for each timeslot, in sequential order.

7.   The method of claim 6 wherein remapping the aggregated data for each timeslot comprises:

reading bytes of aggregated data for the timeslot from the first buffer;

determining a destination address in the second buffer according to the associated address in the table;

storing the first byte of the aggregated data for the timeslot in the second buffer at the destination address;

incrementing the destination address by the associated increment value;

storing a next byte of the aggregated data for the timeslot in the second buffer at the incremented destination address; and

repeating incrementing and storing a next byte until all
of the bytes of the aggregated data for the timeslot have been
stored in the second buffer.

5   8.   The method of claim 7, further comprising:

maintaining two copies of the table, the two copies
including an active table and a shadow table.

9.   The method of claim 8 wherein the table used during the
10   remapping the aggregated data for each timeslot is the active
table.

10.   The method of claim 9, further comprising:

enabling a re-configuration of the table by a
15   modification of the shadow table; and

providing an indicator that the table has been re-
configured.

11.   The method of claim 10 wherein remapping further
20   comprises:

prior to reading any bytes of data from the first
buffer, determining from the indicator if the table has been
reconfigured; and

if it is determined that the table has been
25   reconfigured, swapping the shadow table with the active table.

12. The method of claim 10 wherein the indicator comprises a signal to indicate that a reconfiguration of the table has occurred.

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13. The method of claim 1 wherein the successive frames are T1 frames.

14. The method of claim 1 wherein the successive frames are
10 E1 frames.

15. The method of claim 1 wherein the successive frames are J1 frames.

15 16. The method of claim 1 wherein the data includes High-Level Data Link Control data.

17. The method of claim 1 wherein the data includes Asynchronous Transfer Mode data.

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18. The method of claim 1 wherein the data comprises interleaved data and non-interleaved data.

19. A method comprising:

providing a channel-based map in which data are grouped together by channel;

remapping the channel-based map to produce a timeslot-based map in which data to be transmitted in a number of

5   consecutive frames over a serial link are grouped together by timeslot.

20. An article comprising:

a storage medium having stored thereon instructions that

10   when executed by a machine result in the following:

for successive frames carrying data in timeslots assigned to channels so that data for the channels comprises interleaved data, aggregating the data from successive frames for each of a predetermined number of the timeslots;

15   mapping the aggregated data, by timeslot, to produce a timeslot-based map; and

remapping the aggregated data in the timeslot-based map to produce a channel-based map.

20   21. The article of claim 20 wherein, in the channel-based map, the data for the channels are grouped together, by channel, in the order in which the data were received.

22. A network processor comprising:

25   a serial interface;

a network processor engine of multiple execution threads coupled to the serial interface;

wherein the serial interface is configured to process successive frames carrying data in timeslots, the timeslots

5   assigned to channels so that data for the channels comprises interleaved data, the processing including aggregating the data from successive frames for each of a predetermined number of the timeslots and mapping the aggregated data, by timeslot, to produce a timeslot-based map; and

10   wherein at least one of the multiple execution threads, during execution, operates to remap the aggregated data in the timeslot-based map to produce a channel-based map.

23. The network processor of claim 22 wherein, in the

15   channel-based map, the data for the channels are grouped together, by channel, in the order in which the data were received.

24. The network processor of claim 22 wherein the successive

20   frames are T1 frames.

25. The network processor of claim 22 wherein the successive frames are E1 frames.

23

26. The network processor of claim 22 wherein the successive frames are J1 frames.

27. The network processor of claim 22 wherein the data includes High-Level Data Link Control data.

28. The network processor of claim 22 wherein the data includes Asynchronous Transfer Mode data.

29. The network processor of claim 22 wherein the data comprises interleaved data and non-interleaved data.

30. A system comprising:

a framer adapted to be coupled to a network;

a network access device coupled to the framer, the network access device comprising a network processor; and

the network processor comprising:

a serial interface;

a network processor engine of multiple execution threads coupled to the serial interface;

wherein the serial interface is configured to process successive frames carrying data in timeslots, the timeslots assigned to channels so that data for the channels comprises interleaved data, the processing including aggregating the data from successive frames for

each of a predetermined number of the timeslots and

mapping the aggregated data, by timeslot, to produce a

timeslot-based map; and

wherein at least one of the multiple execution

5   threads, during execution, operates to remap the

aggregated data in the timeslot-based map to produce a

channel-based map.

31.   The system of claim 30 wherein, in the channel-based map,

10   the data for the channels are grouped together, by channel, in

the order in which the data were received.